# The United States Department of Energy

## National Energy Technology Laboratory

# Combustion Technology University Alliance Workshop Announcement/Invitation

### September 12-13, 2002
### Salt Fork Lodge, Cambridge, Ohio

The National Energy Technology Laboratory (NETL) of the U.S. Department of Energy (DOE) announces the organization of a **Combustion Technology University Alliance (CTUA)** and will host its **1st Solids Fuel (Coal) Combustion Technology University Alliance Workshop**. The workshop will provide a forum to present and discuss the need for the organization of the Alliance, its mission, goals, objectives, and future programs. The workshop will bring together researchers from the universities of the coal producing and usage States, industry, and government laboratories to discuss emerging and current combustion technologies and the related applied issues. Specifically, the workshop will provide a forum to present and identify critical, applied combustion research that will aid NETL in achieving DOE/Fossil Vision 21 goals of 60% efficiency and near-zero emissions of a cost-competitive basis. The workshop should identify the needs related to solids (coal) fuel combustion and its latest diagnostic techniques. These could be addressed through collaborations, partnerships, joint-roadmaps and a peer review protocol.

Combustion systems comprise a fleet of high-performance power systems including Low-Emission Boiler Systems, Atmospheric and Pressurized Fluidized Bed Combustion Systems, High Temperature Furnaces, High Temperature Heat Exchangers, and Hybrid Gasification/Combustion Cycles. Research and development activities for the high performance systems must meet challenging cost, reliability, availability, and environmental goals in order to gain acceptance in the national and international marketplaces. A recent survey of AFBC boiler owners indicated that combustion and emissions (including seasonal NOx, mercury, and greenhouse gases) were the major operational issues that could force plant shutdowns. The U.S. DOE/NETL would like to forge and support collaborations and partnerships with academia and industry to meet and resolve these challenges and barriers in research and development of advanced coal/solids fuel combustion systems for near- and intermediate-term time frame applications.

Perspective on current and future combustion programs from DOE will be presented in the workshop. Industry perspectives on current issues and technical barriers related to

coal combustion technology will also be discussed and identified. Academic institutions are encouraged to present their research in combustion and instrumentation development in a ***poster session***, which will be held during the Reception on 09/12/02, in order to give the participants an opportunity to discuss research with the author(s). Workshop discussion and ***breakout sessions*** will focus on:

- ***DOE's perspective on future combustion program***
- ***Impacts of the President's Clear Skies Initiative, Climate Change position and emerging regulation on applied R&D***
- ***Current issues and barriers to coal/solids fuel combustion***
- ***How DOE's combustion program and university R&D can be focused on common goals. How university applied R&D can help the power industry***
- ***Combustion vs Gasification, pro and cons of applications and flexibility***
- ***How power equipment manufacturers' and entrepreneurs' needs can be addressed via university applied R&D***
- ***University outlook on combustion technology R&D***
- ***Establishment of a university peer review protocol for DOE's combustion program***
- ***Regional DOE/University cooperation, working models***
- ***Best methods for collaboration and partnership building***

Among the specific topics to be addressed in the ***poster session*** will be the following:

- ***Advanced Combustion Systems***
- ***Catalytic Combustion***
- ***Oxygen-enhanced Combustion***
- ***Cycle Efficiency Improvements***
- ***Advanced Sensors and Controls***
- ***Improved Reliability, Availability, and Cost Reduction***

## For more information, contact:

Lawrence J. Shadle, Chair
U.S. Department of Energy
National Energy Technology Laboratory
P.O. Box 880, MS N-04
Morgantown, WV 26507-0880
(304) 285-4647
lshadl@netl.doe.gov

Joan Barbish, Conference Coordinator
NETL Event Management
P.O. Box 10940, MS 922-174A
Pittsburgh, PA 15236-0940
(412) 386-4933

joan.barbish@sa.netl.doe.gov